

## Abstract

A sound reception system employing mountable microphones and robust against environmental fluctuations can be constructed.

A sound signal processor 10 includes: first and second framing sections 11 and 12, first and second frequency analyzing sections 13 and 14, and a cross-spectrum calculating section 15, for detecting the phase of a cross-spectrum between the sound signals inputted into first and second microphones 1 and 2; a phase extracting section 16, a phase unwrap processing section 17, a frequency band dividing section 31, and first through N-th inclination calculating sections 32<sub>1</sub> through 32<sub>N</sub>, for detecting the inclinations of the phase of the cross-spectrum detected by the cross-spectrum calculating section 15 with respect to the frequency; and a histogram etc. calculating section 33 and a voiced/voiceless determining section 34, for detecting a speech section in the sound received by the first and second microphones 1 and 2 based on the inclination with respect to the frequency detected by the first through N-th inclination calculating sections 32<sub>1</sub> through 32<sub>N</sub>.